

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231*mf*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/810,646	03/03/97	JACOBSEN	J KPN96-03A2

LM02/0209

THOMAS O HOOVER
HAMILTON SMITH BROOK & REYNOLDS
TWO MILITIA DRIVE
LEXINGTON MA 02173

EXAMINER

PIZIALI, J

ART UNIT

PAPER NUMBER

2778

11

DATE MAILED:

02/09/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 08/810,646	Applicant(s) Jacobsen et al.
Examiner Jeff Piziali	Group Art Unit 2778

Responsive to communication(s) filed on Nov 29, 1999

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

Claim(s) 1-40 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-40 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 10

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

Art Unit: 2778

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required if the application is allowed.

Claim Objections

2. Claims 21 and 35 are objected to because of the following informalities: "batter" should be changed to "battery." Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5-7, 9-11, 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

- (a) The relationship between the "circuit" (see Claim 1, Line 3) and the "color sequential display circuit" (see Claim 5, Line 1).

Art Unit: 2778

- (b) The relationship between the “light source” (see Claim 1, Line 8) and the “LED backlight” (see Claim 6, Line 3).
- (c) The relationship between the “circuit” (see Claim 1, Line 3) and the “timing circuit” (see Claim 7, Line 1).
- (d) The relationship between the “light source” (see Claim 1, Line 8) and the “LED light source” (see Claim 9, Line 1).
- (e) The relationship between the “LED light source” (see Claim 9, Line 1), the “light emitting diode” and the “backlight” (see Claim 10, Line 1).
- (f) The relationship between the “light source” (see Claim 1, Line 8), the “LED light source” (see Claim 9, Line 1) and the “light source” (see Claim 11, Line 1).
- (f) The relationship between the “light source” (see Claim 21, Line 8), the “light emitting diode” (see Claim 27, Line 1) and the “LED backlight” (see Claim 28, Line 2).

5. Claims 12, 17, 18, 25, 30, 35 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 12 recites the limitation "backlight" and "display module" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2778

7. Claim 17 recites the limitation "lens" and "display module" in line 3. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 18 recites the limitation "display module" in line 2. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 25 recites the limitation "backlight," "lens" and "display module" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 30 recites the limitation "docking station" in line 4. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 35 recites the limitation "light source" in line 9. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 39 recites the limitation "backlight," "lens" and "display module" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2778

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-40 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-25 of copending Application No. 08/766,607. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: a docking system for a telephone comprising: a hand held housing having a plurality of control elements and a connection port that electrically connects a circuit within the housing to a wireless telephone that docks with the housing; an active matrix liquid crystal display mounted to the housing and including an array of at least 75,000 pixel electrodes

Art Unit: 2778

having a display area of less than 158 mm², the display receiving display data from the circuit; and a light source within the hand held housing that illuminates the display.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilska et al. (United Kingdom - 2,289,555) in view of Fan et al. (5,815,126).

Regarding claim 1, Wilska et al. discloses a docking system for a telephone [17] comprising: a hand held housing [1] (see Figures 1-3; Page 5, Paragraph 3) having a plurality of control elements [10, 11] (see Figure 3; Page 4, Paragraph 3) and a connection port [8] (see Figure 3; Page 5, Paragraph 3) that electrically connects a circuit [2] (see Figure 3; Page 3, Paragraph 9) within the housing [1] to a wireless telephone [17] that docks with the housing [1] (see Figures 1-3; Page 5, Paragraph 3); a liquid crystal display [9] mounted to the housing [1] (see

Art Unit: 2778

Figures 1-2; Page 4, Paragraph 2), the display receiving display data from the circuit [2] (see Figure 3; Page 3, Paragraph 9). Wilska et al. does not expressly disclose an active matrix LCD or a light source. However, Fan et al. discloses an active matrix liquid crystal display (see Column 1, Lines 45-58) and a light source (see Figure 19; Column 13, Lines 7-34). Wilska et al. and Fan et al. are analogous art because they are from the field of portable communication and display devices.

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's an active matrix liquid crystal display and light source with Wilska's communication device to provide a high quality liquid crystal image that's easy to see (and read) even in the dark.

Regarding claims 2 and 3, Wilska et al. does not expressly disclose the housing comprises a first display port and a second display port. However video line splitters, which provide plural display ports, are well known in the art of display devices.

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize a video line splitter with Wilska's communication device to display images on multiple display devices.

Art Unit: 2778

Regarding claim 4, Wilska et al. does not expressly disclose the matrix display further comprises an array of transistor circuits formed with single crystal silicon, the array of transistor circuits being bonded to an optically transmissive substrate with an adhesive layer. However, Fan et al. discloses a matrix display further comprises an array of transistor circuits formed with single crystal silicon, the array of transistor circuits being bonded to an optically transmissive substrate with an adhesive layer (see Column 1, Lines 45-58).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's matrix display with Wilska's communication device to provide a high quality liquid crystal image.

Regarding claim 5 and 34, Wilska et al. does not expressly disclose a color sequential display circuit. However, Fan et al. discloses a color sequential display circuit (see Column 8, Lines 44-56).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's color sequential display circuit with Wilska's communication device to provide a high quality color liquid crystal image.

Regarding claims 6 and 28, Wilska et al. does not expressly disclose the display is a color sequential display system including an LED backlight. However, Fan et al. discloses an active

Art Unit: 2778

matrix liquid crystal display is a color sequential display system including an LED backlight (see Column 8, Lines 44-56).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's color sequential display circuit with Wilska's communication device to provide a high quality color liquid crystal image that's easy to see (and read) even in the dark.

Regarding claim 7, Wilska et al. does not expressly disclose a timing circuit. However, Fan et al. disclose discloses a timing circuit connected to the active matrix liquid crystal display for controlling the sequential flow to the display (see Column 8, Lines 44-56).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's timing circuit with Wilska's communication device to provide a high quality color liquid crystal image.

Regarding claims 8 and 31, Wilska et al. discloses a battery [3] (see Figure 3) carried by the housing.

Regarding claim 9, Wilska et al. does not expressly disclose an LED light source that is optically coupled to the display and a lens that magnifies an image on the display. However, Fan et al. discloses an LED light source (see Figure 19; Column 13, Lines 7-34), and a magnifying image lens (see Figure 52A; Column 23, Lines 7-11).

Art Unit: 2778

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's LED light source and lens with Wilska's communication device to provide a high quality color liquid crystal image that's easy to see (and read) even in the dark.

Regarding claims 10 and 27, Wilska et al. does not expressly disclose a light emitting diode comprises a backlight. However, Fan et al. discloses a light emitting diode comprises a backlight (see Column 2, Lines 55-59 and Column 8, Lines 44-56).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's LED backlight with Wilska's communication device to provide a high quality color liquid crystal image that's easy to see (and read) even in the dark.

Regarding claim 11, Wilska et al. does not expressly disclose the light source is optically coupled to the matrix display with a side illumination device. However, Fan et al. disclose a side illumination device (see Column 2, Lines 49-55).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's side illumination device with Wilska's communication device to provide a high quality color liquid crystal image that's easy to see (and read) even in the dark.

Art Unit: 2778

Regarding claims 12, 25 and 39, Wilska et al. discloses a display subhousing, wherein the display module can be moved from a storage position to an operating position (see Figures 7-9; Page 10, Paragraph 3).

Regarding claim 13, Wilska et al. discloses a lens is moved from within the housing in the storage position and is viewable in the operating position (see Figures 7-9; Page 10, Paragraph 3).

Regarding claim 14, Wilska et al. discloses the display subhousing rotates relative to the housing between the storage position and the operating position (see Figures 7-9; Page 10, Paragraph 3)..

Regarding claim 15, Wilska et al. discloses the display subhousing translates relative to the housing between the storage position and the operating position (see Figures 7-9; Page 10, Paragraph 3)..

Regarding claim 16, Wilska et al. discloses the display both rotates and moves translationally relative to the housing between a storage position and an operating position (see Figures 7-9; Page 10, Paragraph 3)..

Art Unit: 2778

Regarding claim 17, Wilska et al. discloses a display subhousing module, wherein the display module is detachable from the housing (see Figure 7; Page 10, Paragraph 3)..

Regarding claim 18, Wilska et al. does not expressly disclose at least two display module ports, each port is adapted to couple with the display module both electrically and physically. However video line splitters, which provide plural display ports, are well known in the art of display devices.

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize a video line splitter with Wilska's communication device to display images on multiple display devices.

Regarding claims 19, 26, 32 and 40, Wilska et al. discloses a camera [15, 16] (see Figures 1-3; Page 4, Paragraph 5).

Regarding claims 20 and 29, Wilska et al. does not expressly disclose the active matrix liquid crystal display has at least 640 x 480 pixel electrodes. However, Fan et al. disclose at least a 640 x 480 pixel array (see Column 3, Lines 30-35).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's pixel array with Wilska's communication device to enhance image resolution.

Art Unit: 2778

Regarding claim 21, Wilska et al. discloses a docking system for a telephone [17] comprising: a hand held housing [1] (see Figures 1-3; Page 5, Paragraph 3) having a plurality of control elements [10, 11] (see Figure 3; Page 4, Paragraph 3) and a connection port [8] (see Figure 3; Page 5, Paragraph 3) that links a display control circuit [2] (see Figure 3; Page 3, Paragraph 9) within the housing to a telephone attachable to the housing (see Figures 1-3; Page 5, Paragraph 3); a liquid crystal display [9] mounted to the housing and connected to the display control circuit (see Figures 1-2; Page 4, Paragraph 2), the display receives display data from the circuit (see Figure 3; Page 3, Paragraph 9); and a battery in the housing that provides power to the device. Wilska et al. does not expressly disclose an active matrix LCD or a light source. However, Fan et al. discloses an active matrix liquid crystal display (see Column 1, Lines 45-58) and a light source (see Figure 19; Column 13, Lines 7-34).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's an active matrix liquid crystal display and light source with Wilska's communication device to provide a high quality liquid crystal image that's easy to see (and read) even in the dark.

Regarding claims 22 and 36, Wilska et al. discloses the connection port [8] electrically connects the circuit [2] to the telephone [17] attached to the housing [1] (see Figures 1-3; Page 5, Paragraph 3).

Art Unit: 2778

Regarding claims 23 and 37, Wilska et al. does not expressly disclose the system has both a low resolution alphanumeric display and a high resolution display. However, Fan et al. discloses a high resolution display (see Column 3, Lines 30-35).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's high resolution display and Wilska's low resolution display (Page 4, Paragraph 2) both a high quality display and an inexpensive display.

Regarding claims 24 and 38, Wilska et al. discloses the circuit in the housing is a central processing unit [4] (see Figure 1; Page 4, Paragraph 9).

Regarding claim 30, Wilska et al. discloses a method of displaying an image on a docking system in conjunction with a wireless telephone [17], comprising the steps of: providing a docking element [1] (see Figures 1-3; Page 5, Paragraph 3) having a liquid crystal display [9] within the docking station (see Figures 1-2; Page 4, Paragraph 2), the docking station having a display control circuit [2] (see Figure 3; Page 3, Paragraph 9) and a connection port [8] (see Figure 3; Page 5, Paragraph 3); providing a wireless telephone having a transceiver capable of receiving audio and image data (see Figures 1-3; Page 5, Paragraph 3), and an external port [17] that links with the connection port of the docking station (see Figures 1-3; Page 5, Paragraph 3); providing a communication link between the wireless telephone and the docking station (see Figures 1-3; Page 5, Paragraph 3); docking the telephone with the docking element (see Figures 1-3; Page 5,

Art Unit: 2778

Paragraph 3); and operating the display control circuit connected to the transceiver and the matrix display to display an image on the display (see Figures 1-2; Page 4, Paragraph 2). Wilska et al. does not expressly disclose an active matrix LCD. However, Fan et al. discloses an active matrix liquid crystal display (see Column 1, Lines 45-58).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's an active matrix liquid crystal display with Wilska's communication device to provide a high quality liquid crystal image.

Regarding claim 33, Wilska et al. discloses selecting whether the image from the camera is seen on the display, transmitted to remote location, or both (see Figures 1-3; Page 5, Paragraph 1).

Regarding claim 35, Wilska et al. discloses a docking system for a telephone [17] comprising: a hand held housing [1] (see Figures 1-3; Page 5, Paragraph 3) having a plurality of control elements [10, 11] (see Figure 3; Page 4, Paragraph 3) and a connection port [8] (see Figure 3; Page 5, Paragraph 3) that links a display control circuit [2] (see Figure 3; Page 3, Paragraph 9) within the housing to a telephone attachable to the housing; a liquid crystal display mounted to the housing and connected to the control circuit (see Figures 1-2; Page 4, Paragraph 2), the display receives display data from the circuit (see Figure 3; Page 3, Paragraph 9); and a battery [3] in the housing that provides power to the display and the light source (see Figure 3).

Art Unit: 2778

Wilska et al. does not expressly disclose a color sequential active matrix LCD or a light emitting diode within the hand held housing that illuminates the display. However, Fan et al. discloses a color sequential (see Column 8, Lines 44-56) active matrix liquid crystal display (see Column 1, Lines 45-58) and a light emitting diode light source (see Figure 19; Column 2, Lines 55-59 and Column 13, Lines 7-34).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Fan's an active matrix liquid crystal display and light source with Wilska's communication device to provide a high quality liquid crystal image that's easy to see (and read) even in the dark.

Response to Arguments

17. Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2778

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

a shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2778

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday from 6:30 AM to 3 PM E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on (703) 305-4938.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).



**VIJAY SHANKAR
PRIMARY EXAMINER**

28 2/7/00